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MATERIAL SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : **O-Toluidine**

CAS-No. : 95-53-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : **ChemicalBull Pvt Ltd**
123/124, Panchratna, G.I.D.C
Char Rasta, Vapi-396195
Dist, Valsad, Gujarat, INDIA
Website:- chemicalbull.com
Email:- info@chemicalbull.com

1.4 Emergency telephone

Emergency Phone : **+91 9696960250**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation

Acute toxicity, Oral Acute toxicity, Inhalation

Eye irritation Carcinogenicity

Short-term (acute) aquatic hazard Long-term (chronic)
aquatic hazard

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation

Pictogram



Signal word

Danger

Hazard statement(s)

H301 + H331

Toxic if swallowed or if inhaled.

H319

Causes serious eye irritation.

H350

May cause cancer.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P273

Avoid release to the environment.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P304 + P340 + P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

Restricted to professional users.

Reduced Labeling (<= 125 ml)

Pictogram



Signal word

Danger

Hazard statement(s)

H350

May cause cancer.

H301 + H331

Toxic if swallowed or if inhaled.

Precautionary statement(s)

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P304 + P340 + P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

Supplemental Hazard Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : C₇H₉N
Molecular weight : 107.15 g/mol
CAS-No. : 95-53-4

| Component | Classification | Concentration |
|---|---|---------------|
| 2-Toluidine Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation | | |
| CAS-No. 95-53-4 | Acute Tox. 3; Eye Irrit. 2; Carc. 1B; Aquatic Acute 1; Aquatic Chronic 2; H301, H331, H319, H350, H400, H411 M-Factor - Aquatic Acute: 10 | <= 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material.

Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Light sensitive. Store under inert gas. Air sensitive.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in please contact the supplier of approved gloves

Full contact

Material: Viton®

Minimum layer thickness: 0,7 mm

Break through time: 480 min

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in please contact the supplier of approved gloves

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0,7 mm

Break through time: 30 min

Body Protection

protective clothing

Respiratory protection

Recommended Filter type for vapours of organic compounds

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| a) Appearance | Form: clear, liquid Color: light yellow |
| b) Odor | characteristic |
| c) Odor Threshold | No data available |
| d) pH | ca.7,4 at 20 °C Aqueous solution |
| e) Melting point/freezing point | Melting point/range: -28 °C |
| f) Initial boiling point and boiling range | 200,2 °C at 1.013 hPa - (ECHA) |
| g) Flash point | 85 °C - closed cup |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | Lower explosion limit: 1,5 %(V) |
| k) Vapor pressure | 0,35 hPa at 25 °C |
| l) Vapor density | 3,7 - (Air = 1.0) |
| m) Density | 1,008 g/cm ³ |
| Relative density | No data available |
| n) Water solubility | 16,6 g/l at 20 °C |
| o) Partition coefficient: n-octanol/water | log Pow: 1,4 at 24,5 °C - Bioaccumulation is not expected. |
| p) Autoignition temperature | 480 °C at 1.013 hPa |
| q) Decomposition temperature | No data available |
| r) Viscosity | Viscosity, kinematic: No data available Viscosity, dynamic: No data available |
| s) Explosive properties | No data available |

t) Oxidizing properties No data available

9.2 Other safety information

Dissociation constant 4,45 at 25 °C

Relative vapor density 3,7 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:
acids

10.4 Conditions to avoid

Air
Strong heating.

10.5 Incompatible materials

various plastics

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 750 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - Rat - male - 4 h - 3,79 mg/l
(OECD Test Guideline 403)
LD50 Dermal - Rabbit - male - 3.250 mg/kg
Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit
Result: Irritations - 24 h
(Draize Test)

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Eye irritation
(Draize Test)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative
(OECD Test Guideline 429)
The value is given in analogy to the following substances: p-toluidine

Germ cell mutagenicity

Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: positive
Remarks: (National Toxicology Program)
Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Result: positive
Remarks: (ECHA)

Test Type: In vivo micronucleus test
Species: Rat
Cell type: Bone marrow
Application Route: Intraperitoneal injection

Result: positive
Remarks: (National Toxicology Program)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

RTECS: XU2975000

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

No data available

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) -
30,9 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria Remarks: (ECHA)
(2-Toluidine)

This material safety data sheet complies with the requirements of Regulation

Authorisations and/or restrictions on use

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : 2-Toluidine

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : 2-Toluidine

National legislation

Seveso of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ACUTE TOXIC

: ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir national regulations where applicable.

Take note on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| | |
|-------------|---|
| H301 | Toxic if swallowed. |
| H301 + H331 | Toxic if swallowed or if inhaled. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H350 | May cause cancer. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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